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EXAMINER
TO, JENNIFER N

ART UNIT	PAPER NUMBER
2195	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/965,374	LOUCKS, JEFFRY HARLOW
	Examiner	Art Unit	
	JENNIFER N. TO	2195	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>15 April 2009</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-29</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-29</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-29 are pending for examination.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

3.   Claims 3, 12, and 18 rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

      a.   The claim language in the following claims is not clearly understood:

           As per claim 3, lines 1-2, it is uncertain how "the computer operating

system" can "comprises a portable electronic device" (i.e. the computer operating

system is <u>a software program</u>, a software program <u>cannot comprises</u> a portable

electronic <u>device</u>).

           As per claims 12 and 18, they have the same deficiency as claim 3 above.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-2, and 4-11, 13-17, 19-23, 25-27, and 29 are rejected under 35 U.S.C.

103(a) as being unpatentable over Akiyama et al. (hereafter Akiyama) (U.S. Patent No.

6430594), in view of Burns (U.S. Patent No. 6098090), and further in view of Fletcher et

al. (hereafter Fletcher) (U.S. Patent No. 5012409).

6.   Akiyama, Burns, and Fletcher were cited in the previous office action.

7.   As per claim 1, Akiyama teaches the invention substantially as claimed including

a method for scheduling tasks (col. 1, lines 7-14) comprising:

        operating a kernel of a computer operating system to cycle through a plurality of

stored pre-assigned time slices, at least one slice being assigned to a task block (figs.

1-3, 5; col. 3, lines 34-46; col. 6, lines 12-41);

        scheduling execution of a service manager on the task block (fig. 5; col. 3, lines

35-56; col. 5, lines 27-60; col. 7, lines 16-32);

        ranking the registered services according to priority (col. 8, lines 27-30)

        operating the service manager to schedule a plurality of registered services for

execution as by rank, each service being scheduled for execution within at least one of

the pre-assigned time slices, where the register services are scheduled for execution

independently of any other task block (fig. 5; col. 5, lines 25-55; col. 8, lines 19-50); and

        allocating an execution presence and data presence to a registered service (fig.

1; col. 3, lines 32-53; col. 9, lines 51-64).

8.   Akiyama did not specifically teach the type of the task blocks are separately to include background task and foreground task, and the background task being scheduled independent from the operation of the foreground task.

9.   However, Burns teaches the tasks are separate into the background task and the foreground task, the background task being scheduled independent from the operation of the foreground task (col. 1, lines 13-18, 55-58; background tasks are performed frequently "monitoring the selection…or the choice of a menu selection", these background tasks are performed without the controlled or involved by the foreground task).

10.   It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have combined the teaching of Akiyama and Burns because Akiyama teaches a system of switching between task block based on the pre-assigned time slice, wherein each of the task block comprises a plurality of task, each task block had its own scheduler, and Burns teaching switching between the background task and the foreground task based on the pre-assigned time slice, wherein the background task had its own scheduler. Thus it is obvious to one of an ordinary skill in the art at the time the invention was made to have recognized that the background task and the foreground task of Burns are equivalent as the task blocks of Akiyama. In addition, Burn teaching of the background task being scheduled independent from the operation of the foreground task. Therefore it would have been obvious to one of an ordinary skill

in the art at the time the invention was made to have included the concept of Burns into
Akiyama's system to improve the integrity of Akiyama's system by enabling a task to
register the execution of one or more background tasks, and minimizing the amount of
system resources (Burns, col. 1, lines 55-61).

11.   Akiyama and Burns did not specifically teach ranking the register services
according to resource need.

12.   However, Fletcher teaches ranking the register services according to the priority
and resource need (abstract).

13.   It would have been obvious to one of an ordinary skill in the art at the time the
invention was made to have combined the teaching of Akiyama, Burns, and Fletcher
because all of these systems are directed to a multitasking system having a pre-
assigned time slice associated with the tasks, and in addition Fletcher also teaching
ranking the register services (tasks) according to the priority and resource need.
Therefore, it would have been obvious to one of an ordinary skill in the art at the time
the invention was made to have included the concept of Fletcher into Akiyama and
Burns 's system to improve the integrity of Akiyama and Burns 's system by controlling
the execution of tasks based on the priority and resource need (Fletcher, col. 4, lines
38-39).

14.   As per claims 2, and 9, Akiyama further teaches the step of the background task

searchs for at least one registered service associated therewith (col. 6, lines 29-41).

15.   As per claim 4, Akiyama, Burns and Fletcher did not specifically teach that the

data presence is an A5-based global variable context. However, it would have been

obvious to one of an ordinary skill in the art at the time the invention was made to have

included A5-based as the data presence type in Akiyama, Burns and Fletcher 's system

because A5 based is known as one of the common used data in the art.

16.   As per claims 5-6, Akiyama teaches wherein the service is a system related

activity and/or an interrupt-related activity (fig. 6).

17.   As per claim 7, Burns teaches wherein the service is a background-related

activity (fig. 1).

18.   As per claim 8, Akiyama teaches the step of periodically repeating the steps a)

through c) (figs. 9, 11; col. 9, lines 31-34).

19.   As per claims 10-11, 13-17, 19-23, 25-27, and 29, they are rejected for the same

reason as claims 1-2, and 4-9 above.

20.   Claims 3, 12, 18, 24, and 28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Akiyama et al. (hereafter Akiyama) (U.S. Patent No. 6430594), in

view of Burns (U.S. Patent No. 6098090), in view of Fletcher et al. (hereafter Fletcher)

(U.S. Patent No. 5012409), as applied in claims 1, 10, 16, 23, and 26 above, and further

in view of Mathur et al. (hereafter Mathur) (U.S. Patent No. 5742825).

21.   As per claims 3, 12, 18, 24, and 28, Akiyama, Burns, and Fletcher teach the

invention substantially as claimed in claims 1, 10, 16, 23, and 26 above. Akiyama,

Burns, and Fletcher did not specifically teach the method and system are implemented

on a portable electronic device.

22.   However, Mathur teaches the method and system are implemented on a portable

electronic device (col. 5, lines 5-10).

23.   It would have been obvious to one of an ordinary skill in the art at the time the

invention was made to have combined the teaching of Akiyama, Burns, Fletcher, and

Mathur because all of these systems are directed to a multitasking system having a pre-

assigned time slice associated with the tasks. In addition, Mathur teaching of these

systems can be implemented on a portable electronic device. Therefore, it would have

been obvious to one of an ordinary skill in the art at the time the invention was made to

have included the concept of Mathur into Akiyama, Burns and Fletcher 's system to

improve the integrity of Akiyama, Burns and Fletcher 's system by expanding the

utilization of Akiyama, Burns and Fletcher 's system into a different device based on

user needs.

Response to Arguments

24.   Applicant's arguments filed 04/15/2009 have been fully considered but they are

not persuasive.

25.   In the remark applicant argued that Akiyama fail to teach (1) each service is

scheduled for execution in at least one of the pre-assigned time slices, (2) services are

scheduled for execution independent of any foreground tasks, and Burns fail to teach

(3) independence from foreground tasks, enables interrupt services to run at scheduled

time.

26.   Examiner respectful disagreed with applicant's arguments.

        First, applicant's arguments fail to comply with 37 CFR 1.111(b) because they

amount to a general allegation that the claims define a patentable invention without

specifically pointing out how the language of the claims patentably distinguishes them

from the references.

        Second, in response to applicant's arguments against the references individually,

one cannot show nonobviousness by attacking references individually where the

rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413,

208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed.

Cir. 1986).

As to point (1), Akiyama clearly teaches each service is scheduled for execution

in at least one of the pre-assigned time slices (figs. 1-3, 5; col. 3, lines 34-46; col. 5,

lines 25-55; col. 6, lines 12-41; col. 8, lines 19-50, each task of the task bocks is

scheduled for execution within the dedicated pre-assigned time slices).

As to point (2), the rejection is made based on the combination of Akiyama and

Burns. Akiyama did not specifically teach the type of the task blocks are separately to

include background task and foreground task, and the background task being

scheduled independent from the operation of the foreground task. Burns teaches the

tasks are separate into the background task and the foreground task, the background

task being scheduled independent from the operation of the foreground task (col. 1,

lines 13-18, 55-58; background tasks are performed frequently "monitoring the

selection…or the choice of a menu selection", these background tasks are performed

without the controlled or involved by the foreground task). It would have been obvious

to one of an ordinary skill in the art at the time the invention was made to have

combined the teaching of Akiyama and Burns because Akiyama teaches a system of

switching between task block based on the pre-assigned time slice, wherein each of the

task block comprises a plurality of task, each task block had its own scheduler, and

Burns teaching switching between the background task and the foreground task based

on the pre-assigned time slice, wherein the background task had its own scheduler.

Thus it is obvious to one of an ordinary skill in the art at the time the invention was

made to have recognized that the background task and the foreground task of Burns

are equivalent as the task blocks of Akiyama. In addition, Burn teaching of the

background task being scheduled independent from the operation of the foreground

task. Therefore it would have been obvious to one of an ordinary skill in the art at the

time the invention was made to have included the concept of Burns into Akiyama's

system to improve the integrity of Akiyama's system by enabling a task to register the

execution of one or more background tasks, and minimizing the amount of system

resources (Burns, col. 1, lines 55-61). Therefore, the combined teaching of Akiyama

and Burns teach services are scheduled for execution independent of any foreground

tasks.

   As to point (3), it is noted that the features upon which applicant relies (i.e.,

independence from foreground tasks, <u>enables interrupt services to run at scheduled

time</u>) are not recited in the rejected claim(s). Although the claims are interpreted in light

of the specification, limitations from the specification are not read into the claims. See

In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In order for

examiner to consider this feature, examiner suggested applicant to recite the feature

into the claims.

Conclusion

27.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure (see PTO form 892 for details).

28. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

29. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JENNIFER N. TO whose telephone number is (571)272-

7212. The examiner can normally be reached on M-T 6AM- 3:30 PM, F 6AM- 2:30 PM.

30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

31. Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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/VAN H NGUYEN/   /Jennifer To/
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